

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method of sending first and second signals to a plurality of user equipments, the method comprising :

providing a dedicated channel for each one of the plurality of user equipments,
providing a code-multiplexed shared channel for the plurality of user equipments,
assigning an antenna of a set of antennas to each one of the plurality of user equipments,
sending one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity along with one of the second signals on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity through the assigned antenna;

~~sending one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.~~

2. (previously presented): The method of claim 1, wherein the dedicated channel is a DPCH type channel and the code-multiplexed shared channel is a HS-DSCH type channel of a HSDPA type system.

3. (previously presented) The method of claim 1, further comprising :

- assigning a carrier frequency of a set of at least first and second carrier frequencies to each one of the dedicated channels,

- assigning a carrier frequency of the set of carrier frequencies to each one of the plurality of user equipments.

4. (original) The method of claim 3, further comprising applying transmit diversity for sending of the one of the second signals.

5. (previously presented) The method of claim 4, wherein closed loop transmit diversity is applied.

6. (currently amended) A computer program ~~product~~embodied on a computer readable recording medium for enabling a computer to control a sending of first and second signals to a plurality of user equipments, the program comprising:

~~a computer readable storage medium; and~~
~~software instructions on the computer readable storage medium adapted to enable the computer to perform operations of:~~

- providing of a dedicated channel for each one of the plurality of user equipments,
- providing of a code-multiplexed shared channel for the plurality of user equipments,

- assigning of an antenna of a set of antennas to each one of the user equipments,
- sending of one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity along

with one of the second signals on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity through the assigned antenna;

~~sending of one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.~~

7. (previously presented): A sender which sends first and second signals to a plurality of user equipments, the sender comprising:

a first component which provides a dedicated channel for each one of the plurality of user equipments,

a second component which provides a code-multiplexed shared channel to the plurality of user equipments,

a third component which assigns an antenna of a set of antennas to each one of the plurality of user equipments,

a fourth component which sends one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,

a fifth component which sends one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.

8. (previously presented) The sender of claim 7 further comprising scheduler which provides the multi-user diversity.

9. (original) The sender of claim 7 further comprising:

means for assigning a carrier frequency of a set of at least first and second carrier frequencies to each one of the dedicated channels,

means for assigning of a carrier frequency of a set of carrier frequencies to each one of the user equipments.

10. (previously presented) A telecommunication system for sending first and second signals to a plurality of user equipments, the telecommunication system comprising:

a first component which provides a dedicated channel for each one of the plurality of user equipments,

a second component which provides a code-multiplexed shared channel for the plurality of user equipments,

a third component which provides an antenna of a set of antennas to each one of the user equipments,

a fourth component which provides one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,

a fifth component which provides one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.

11. (previously presented) The method of sending first and second signals to a plurality of user equipments according to claims 1, wherein the sending one of the first signals by applying transmit diversity and the sending one of the second signals by applying multi-user diversity occurs simultaneously.